

CLAIMS

What is claimed is:

5 1. An apparatus for sterilizing
microorganisms in a container comprising:
 the container, wherein the container includes a
blister formed therein;
 a backing material that together with the
10 blister form a cavity in which is contained a contact
lens and a preservative fluid;
 a flashlamp for generating high-intensity,
short-duration pulses of light, and for deactivating
 microorganisms within the container by illuminating the
15 container with the pulses of light having been generated.

20 2. The apparatus of Claim 1 wherein said
sealed contact lens container includes a polyolefin.

20 3. The apparatus of Claim 1 wherein said
sealed contact lens container includes polyethylene.

25 4. The apparatus of Claim 1 wherein said
sealed contact lens container transmits light in a
spectrum of from between 180 nm and 300 nm.

30 5. The apparatus of Claim 1 wherein said
preservative fluid is at least one percent transmissive
to light having a wavelength of 260 nanometers.

30 6. The apparatus of Claim 1 wherein said
flashlamp deactivating includes means for achieving a
sterility assurance level of at least 10^{-6} .

7. The apparatus of Claim 1 wherein said flashlamp generates high-intensity, short-duration pulses of polychromatic light.

5 8. An apparatus for deactivating microorganisms in a container comprising:
 a sealed contact lens container;
 a preservative fluid and a contact lens within
 the sealed contact lens container; and
10 a flashlamp for generating pulses of light,
 portions of which transmit through at least a portion of
 the sealed contact lens container and deactivate
 microorganisms on the contact lens.

15 9. The apparatus of Claim 8 wherein the flashlamp generates pulses of polychromatic light.

10. The apparatus of Claim 8 wherein at least a portion of the sealed contact lens container is
20 transmissive to light having wavelengths at least between 180 and 300 nm.

11. The apparatus of Claim 8 wherein each of the pulses of light has an intensity of at least about
25 0.01 J/cm².

12. The apparatus of Claim 8 wherein at least about 1% of pulses of light has a wavelength at about 260 nm.

13. An apparatus for deactivating microorganisms in a container comprising:

a sealed contact lens container;

a preservative fluid and a contact lens within

5 the sealed contact lens container; and

a lamp for generating light having an energy density at least about 2.5 mJ/cm^2 at wavelengths between 200 and 380 nm, wherein at least a portion of the light transmits through at least a portion of the sealed

10 contact lens container and deactivates microorganisms on the contact lens.

14. The apparatus of Claim 13 wherein the lamp comprises a flashlamp for generating one or more pulses 15 of light.

15. The apparatus of Claim 13 wherein the lamp generates light having an energy density at least about 0.18 mJ/cm^2 at wavelengths between 240 and 280 nm

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16. An apparatus comprising:

a sealed contact lens container containing a preservative fluid and a contact lens; and

a light source for generating light, at least

25 portions of which transmit through at least a portion of the sealed contact lens container and deactivate microorganisms on the contact lens.

17. The apparatus of Claim 16 wherein the 30 sealed contact lens container includes:

a blister formed therein;

a backing material that together with the blister form a cavity in which is contained the contact lens and the preservative fluid.

26. The method of Claim 23 wherein the illuminating step comprises illuminating the sealed contact lens container with one or more pulses of polychromatic light.

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27. The method of Claim 23 wherein the illuminating step comprises illuminating the sealed contact lens container with one or more pulses of light having a wavelength of about 260 nm, wherein at least a portion of the sealed contact lens container is transmissive to at least a portion of the light having the wavelength of about 260 nm.

28. The method of Claim 23 wherein the illuminating step comprises illuminating the sealed contact lens container with one or more pulses of light having wavelengths between about 180 and about 300 nm, wherein at least a portion of the sealed contact lens container is transmissive to at least a portion of the one or more pulses of light having the wavelengths between about 180 and about 300 nm.

29. The method of Claim 23 wherein the illuminating step comprises illuminating the sealed contact lens container with one or more pulses of far UV light, wherein at least a portion of the sealed contact lens container is transmissive to at least a portion of the far UV light.

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30. A method comprising:

providing a sealed contact lens container including a blister formed therein and including a backing material that together with the blister form a cavity in which is contained a preservative fluid and a contact lens; and

illuminating the contact lens with one or more pulses of light in order to deactivate microorganisms on the contact lens.

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31. A method comprising:

providing a sealed contact lens container containing a preservative fluid and a contact lens; and illuminating the contact lens with light in order to deactivate microorganisms on the contact lens.

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32. The method of Claim 31 further comprising transmitting at least a portion of the light through at least a portion of the sealed contact lens container to illuminate the contact lens.

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33. The method of Claim 31 wherein the illuminating step comprises illuminating the contact lens with one or more pulses of light.

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34. The method of Claim 31 wherein the illuminating step comprises illuminating the contact lens with one or more pulses of polychromatic light.

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35. The method of Claim 31 wherein the illuminating step comprises illuminating the contact lens with one or more pulses of polychromatic light having wavelengths within a range of about 180 to about 300 nm.

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36. The method of Claim 31 wherein the illuminating step comprises illuminating the contact lens with one or more pulses of polychromatic light such that at least 1% of the one or more pulses of polychromatic
5 light at a wavelength of 260 nm reaches the contact lens.

37. The method of Claim 31 wherein the illuminating step comprises illuminating the contact lens with the light for achieving a sterility assurance level
10 of at least 10^{-6} .

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